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09/622,982	10/19/2000	Werner Dirschedl	4100 117P	5798

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EXAMINER

SHEW, JOHN

ART UNIT PAPER NUMBER

2664

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/622,982

Applicant(s)

DIRSCHIEDL ET AL.

Examiner

John L. Shew

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Specification***

***Claim Objections***

1. Claim 1 is objected to because of the following informalities:

The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 fails to disclose the exact specifications upon which the 1<sup>st</sup> data transmission protocol (DUPHE) and 2<sup>nd</sup> data transmission protocol (DUP) are based.

Appropriate correction is required.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the data structure of the packet (Figure 1/1), does not reasonably provide enablement for claim 1 for the data packet identifiers specified in the alternative. The identifier limitations number, length, priority and type recited in claim 1 carry many permutations. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to determine the correct

permutation of the identifiers for the invention commensurate in scope with these claims.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "characterized" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "characterized"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Regarding claim 1, the phrase "in the sense of" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

4. Regarding claims 2 and 3, the phrase "e.g." renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sindhushayana et al., and further in view of Bishop et al. For claim 1 Sindhushayana et al. teaches a simplex 2nd data transmission protocol (Fig. 1) using a forward link which is expandable to both forward and reverse links for bi-directional communication (forward and reverse links, column 4 lines 60-67). With bi-directional communication, the reverse link would support the same hardware as that described for the forward link to provide identical functionality. The data is sent in data packets over a radio RF unit (44). The data packets are optimized for a variable packet length before transmission (column 2 lines 55-57). It is well known in the art that data transmission rates can be aligned to the type of data. Video data requires higher bandwidth than voice data or in turn short message data, due to quality of service issues. A type parameter can identify the priority of data for transmission rate. Sindhushayana's method implies the packet length is transmitted indirectly from the rate calculation of data transmission based upon a fairness criteria.

Bishop et al. teaches a 1<sup>st</sup> data transmission protocol. The protocol encompasses elements of priority and type (column 1 lines 53-61) as well as numbers (column 9 lines 6-9), and length (Buffer Size, FIG. 4). The identifiers are fields within the output queue structure (FIG. 4) established for data transmission. The data stream is optimized for

minimum latency through the use of acknowledgements (type of parameter) (column 1 lines 49-50). Bishop teaches the use of a transmission medium and leave many options as to the implementation of the protocol. This implementation can be through any medium, including radio, copper wires, satellite, microwave, fiber optics among others. Sindhushayana teaches the use of 2<sup>nd</sup> data transmission protocol via digital radio communications. The conversion from the 1<sup>st</sup> data transmission protocol to the 2<sup>nd</sup> data transmission protocol is through the Packet Network Interface (24). It would have been obvious to one skilled in the art to modify the method of Sindhushayana to incorporate the packet parameters taught by Bishop to optimize the packet length, since Sindhushayana uses parameters such as data, messaging, voice, video (column 4 lines 60-62), which would provide identifiable communication parameters from which Sindhushayana would have varied the packet length.

Such a system can optimize data transfer over radio frequency waves for greater transmission distance. Further, claim 2 is rejected by the teachings of Sindhushayana on the insertion of data packet identifiers by the sending/receiving stations (column 4 lines 30-45) through the channel element (42). These identifiers are not all inclusive and can be modified to include parameters taught by Bishop. The packet length is assigned to optimize the throughput (column 7 lines 30-64).

Claim 3 is rejected by claims 1 and 2 above and further by Sindhushayana in transmission of this information over the air (column 4 lines 45-48) to the remote receiving station on the forward link. The data packet length is calculated based upon

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the throughput rate which can be associated to the data type such as video, voice or short message.

Claim 4 is rejected by claims 1, 2 and 3 above and further by the teachings of Sindhushayana in the remote station at receiving the data packet identifiers and decoding them (column 4 lines 49-59). This would include the variable length calculation where necessary as described by Sindhushayana (column 9 lines 36-67).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 703-305-8708. The examiner can normally be reached on 8:30am - 5:00pm.

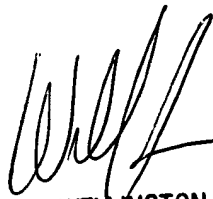
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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